

## § 4 Admission requirements

(1) Applicants may be enrolled in the master's degree program in Materials Science only if they have acquired the following:

1. A certificate of university entrance (general or specific to a relevant subject) or, in accordance with a legal ordinance, a certificate of entrance to a university of applied sciences or a certificate of previous educational qualification recognized as equivalent by legal regulation or by the relevant state authority, or satisfaction of the requirements for qualification through professional training or the requirements of the regulations for admission for applicants from abroad (Bildungsausländerhochschulzugangsverordnung).
2. A degree qualification that meets the following requirements:
  - a) It must be an initial university degree with professional qualification with a normal study period of at least six semesters from Paderborn University or a state or state-recognized university or a state or state-recognized university of cooperative education. Degree qualifications from a foreign state or state-recognized university allow admission provided that the competence acquired does not differ significantly from a degree from Paderborn University as per clause 1. For foreign educational qualifications, the equivalence agreements of the Conference of Education Ministers and the Conference of University Rectors or corresponding statutory regulations shall be observed. Insofar as agreements and conventions of the Federal Republic of Germany with other states about equivalence in the university sector (equivalence agreements) work to the advantage of students of foreign countries notwithstanding clause 2, the regulations of the equivalence agreement shall take precedence. In the event of doubt about the existence or absence of significant differences, the Central Agency for Foreign Education (Zentralstelle für ausländisches Bildungswesen) shall also be consulted. The Examinations Board shall determine compliance with the requirements of clause 2.
  - b) The degree qualification must be a degree qualification with the title Physics, Chemistry or Materials Science. Alternatively, the degree qualification must include the competences described below or there must be no significant differences from them:
    - aa) Principles of physics: Command of the principles of mechanics, thermodynamics, electro-dynamics, atomic physics, quantum mechanics, and solid-state physics, combined with the ability to create models and abstract mathematical formulations of physical phenomena.
    - bb) Practicals: Identifying and extracting significant scientific interrelationships using experiments conducted by the applicant herself or himself, recording and critically evaluating the results of experiments. The ability to use basic chemical, physical and materials science experimental apparatus and measurement methods reliably.
    - cc) Principles of chemistry: Command of the principles of inorganic, organic and physical chemistry, materials systems, energetics, bonding theory, the basic procedures of spectroscopy.
    - dd) Higher mathematics: Command of the basic mathematical concepts and methods that are required to understand and solve problems in the master's degree in Materials Science. This comprises advanced knowledge in the fields of linear algebra, analysis, Fourier series, differential equations, and vector analysis. The Examinations Board shall determine compliance with these requirements. If requirements are missing which can nevertheless be met by taking courses worth up to 30 ECTS credits, the Examinations Board may, in consultation with the candidate, determine which additional courses must be completed as a further requirement for enrollment.

- c) The degree program must have been completed with an overall grade of at least 2.5 (or an equivalent final grade from abroad).
  3. An adequate command of English, in accordance with the specifications of para. 2.
  4. For a foreign applicant who is not on an equal footing with German applicants as a result or on the basis of state treaties, demonstration of her or his capacity to study by means of the results of a Graduate Record Examination (GRE) Revised General Test. A minimum of 157 points in the "Quantitative Reasoning" section and a minimum of 4.5 points in the "Analytical Writing" section of the GRE Revised General Test are usually required. The Examinations Board may accept a lower points score, depending on the qualification, if the final grade of the qualification in accordance with no. 2 is very good. Applicants with a German university entrance qualification are exempt from demonstrating their ability to study.
- (2) Adequate command of the English language shall be demonstrated as follows:
- a) A bachelor's degree from an English-speaking country or on an English-language accredited domestic program or
  - b) Test of English as a Foreign Language (TOEFL) "internet-based" Test (iBT) with a result of at least 80 points or
  - c) TOEFL "paper-based" test (PBT) with a result of at least 550 points or
  - d) International English Language Testing System (IELTS) test with a result of at least 6.0 or
  - e) Cambridge Test – First Certificate in English (FCE) or
  - f) tests of an equivalent level or
  - g) appropriate previous qualification from school.
- (3) Enrollment shall be declined if
1. the admission requirements from para. 1 to 2 have not been met,
  2. the candidate definitively failed to pass an examination required under the Examination Regulations in the relevant program at a university within the scope of the Basic Law or
  3. the candidate definitively failed to pass any other examination required under the Examination Regulations in a program at a university within the scope of the Basic Law if both the failed program is close in content to the master's program in Materials Science at Paderborn University and the examination that has been definitively failed has significant proximity in terms of content to an examination in a compulsory module on the master's degree program in Materials Science at Paderborn University.